COMMERCIAL WATER TANK CLEANING MACHINE

Operational Manual

Dear Customer,

Thanks for purchasing this innovative product. The aim for this product development is for achieving followings.

- 1. Reduce water wastage
- 2. Save electricity
- 3. Reduce physical efforts,
- 4. Reduce tank cleaning time
- 5. Independent work,
- 6. And improve hygienic condition for water tank.

We the team **"Sedimclean**" wishes you to achieve same aim. Before using the machine, please read the safety information and operation instructions completely. You may also download the video at www.sedimclean.com.

Your feedback to us after use of this machine at <u>info@sedimclean.com</u>, will give us opportunity to serve you with required improvement infuture.

Thanks .

Team Prayosha Innovative

Vadodara. Gujarat India.

<u>Sedimclean</u>[™]

1 Commercial Water Tank Cleaning Machine with all components



2 All components of Commercial machine model



Sedimclean Commercial Model packing content.

- 1. Sedimclean Brand water tank cleaning Machine Model Commercial
- 2. Inlet Hose Pipe Connected with Machine
- 3. Outlet Hose Pipe Kept separately
- 4. Inlet Pipe Segments 03 Nos.
- 5. Operational and Safety Manual
- 6. Warrantee Card for Pump
- 7. Warrantee Card for Machine (Prayosha Innovative)
- 8. Spare O rings set (Extra)
- 9. Spare fine Filter Element 1 Nos. (Extra)
- 10.Brush Head 2 nos.

Important Instruction

Before using the machine, please read the operational and safety guidelines completely. Also please view video demonstration on our websites.

Features

- No need to empty out water storage tank.
- No water supply continuity during tank cleaning of water storage tank.
- Minimum Possible wastage of water.
- No need to enter inside water storage tank for cleaning purpose.
- No chemicals or consumables needed.
- Easy to operate with self-service design.
- Tank Cleaning within few Minutes.
- Very low power consumption.
- One machine suitable for 500 to 10000 liters of water storage tank capacity
- Machine handle adjustable as per tank capacity or depth of tank.
- Tank walls can be cleaned easily.
- Works on negative suction from tank even with lowest water level about 300 mm.
- Design Registered.

Technical Specification

- Application: Sediment deposition cleaning for domestic water storage tanks such as underground, above ground, loft tanks, swimming pools, water sumps.... etc. for home, apartment, hospitals, schools, party plot.... etc.
- Power Supply: 230 V AC 50 Hz
- Power Rating: 0.75 KW / 1 HP

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- Cable Length: 5 meters
- Filter Media Rating: 5 microns
- Continuous usage time: Maximum 1 hour. (Observe outlet flow, if it is reduced drastically, clean the filters and use again)
- Empty weight of complete unit: 18 Kg Approximate.
- Water flow: About 3000 Liters per hour when filter is clean.
- Suitable for water tank depth: 2.5 meters for better comfort
- Suitable for Water Tank Capacity: 500 to10000 Liters or permissible depth of tank.
- Materials of Construction: Different plastics, Rubbers & Steel.
- Filters: Single Filter at Inlet and Double filtration at outlet of water.
- Suction Size: 20 NB (³/₄" Inch)
- Discharge Size: 25 NB (1" Inch)
- Hose Pipes: Food grade thunder hose 4 m long each (suction and discharge)
- Outlet options: outlet may be recovered to original or other tank from where filtration is done or it may be drained out if it contains fine dust particles which may increase water turbidity.

<u>Note</u>:- Technical specifications and product images are subjected to change for better performance and based on improvement in design.

Packing box opening and assembling machine

Please verify that all components specified in packing list are correct and available with machine.

During assembling please follow following procedure.

- 1. Verify suction filter bowl is tightened correctly.
- 2. Verify discharge filter bowl is tightened correctly by its tightening tool.
- 3. Connect outlet / return / discharge hose pipe to discharge filter outlet by push fit quick release coupling.
- 4. Check inlet hose pipe to suction filter is tightened correctly.
- 5. Connect required numbers of UPVC suction pipes at other free end of suction hose pipe as per depth of tank.
- 6. Connect brush to suction pipe end.
- 7. Avoid twisting or sharp bending of hose pipes.
- 8. Pour priming water in pump unit by discharge hose outlet funnel type end. Fill it completely till water comes out from suction hose pipe.

- 9. Insert brush head to tank which needs to be cleaned.
- 10.Keep outlet pipe near to water drain point for startup for flow verification.
- 11.Plug the machine cable to power supply socket 3 pin single phase 230V AC.
- 12. Machine is ready to start.

Now machine is ready for tank cleaning operation. We request to view demonstration video on our website for complete information for how to use machine.

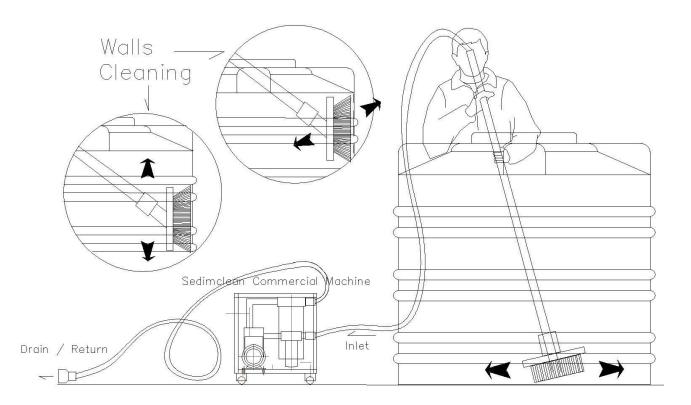
<u>First time use</u>

Please make sure for following sequential parameters before use.

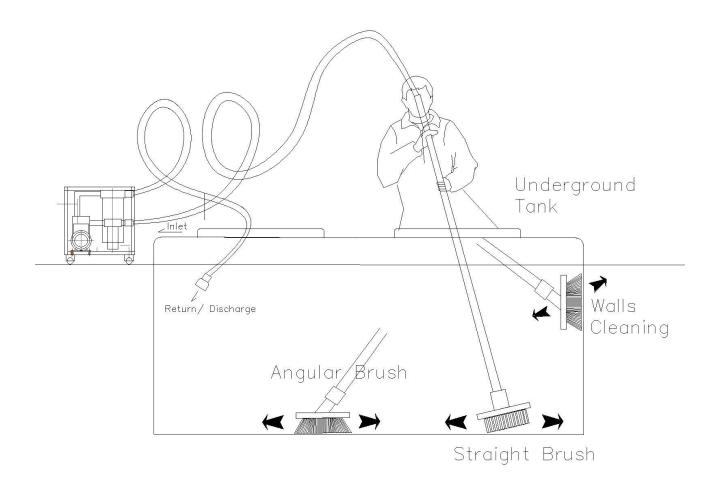
- 1. Water tank should have water level sufficient to submerse the brush head. Here minimum water level in tank should be 300 mm (1feet) & maximum level up to tank's overflow point. This machine operates equally well in both the conditions.
- 2. Verify that power supply rating and is live. The distance of power supply point should be near to machine operation. If power supply point is away f5rom machine location use 3 core extension cable box only. Please make sure that power supply is single phase with earthing safety.
- 3. Avoid water tank makeup during tank cleaning operation by closing inlet valve or stopping pump.
- 4. Insert suction pipe end slowly in water tank without disturbing settled sediment at bottom of tank.
- 5. When power supply is switched on, water flow will start from discharge pipe end to out.
- 6. For initial startup keep discharge outlet pipe on water drain to drain out initial water outlet. Now start power supply, initially few air bubbles will come out from machine.
- 7. If more air comes out, switch off power supply and tighten suction side filter and hose connection.
- 8. After startup draining and regular flow of water setup and if outlet water looks usable, shift the discharge pipe to tank inlet to recover filtered water back to tank.
- 9. If tank contains more settled quantity of sediment, please remove discharge filter and allow sedimented water to drain out completely without recovery of water. This is recommended only for applications where water draining is permissible and essential for tank cleaning work.

- 10.Slowly move the brush head handle pipe on deposited sediment portion. If deposited sediments get disturbed, stop movement, keep brush end as it is for few minutes.
- 11.Move handle slowly forward with absorption of sediment depots from tank's bottom as well as walls.
- 12.Rotate the Handle clockwise or reverse direction, on same position till tank becomes clean. Continue on same position till tank bottom becomes clear.
- 13.If sediment is having heavy particles just like sand, slightly push the handle to suck it from its position with required movement of brush head.
- 14.Brush to be selected as per application suitability. Straight or angular brush may be selected as per application suitability.
- 15.During operation, if observed low flow, switch off power supply and clean the filter by draining dirty water from suction and discharge filters.

3 Cleaning Above Ground Tank with discharge to outside Drain



4 Cleaning Underground Tank with discharge return to tank



Filter Cleaning

Internal water filter cleaning is to be carried out during following situations.

- 1. After Cleaning of tank to keep machine clean.
- 2. During Tank Cleaning Operation for efficient machine operation if sediment quantity is higher than machine storage capacity.
- 3. For long time storage so that machine will remain dry and easy to use afterwards.

Different methods for filter element cleaning purpose.

Use plastic bucket with water for filter cleaning. Avoid use of hard wire brush for filter cleaning. Gentle rub will keep filter in good condition. Also we may pour clean water from top in to central portion of filter element for reverse flow cleaning with gentle rubbing.

Finally, clean filter with fresh water. Now filter media is ready.

For use after long time dry it in sunlight for few hours. For immediate re use drying of filter is not required.

The dusty water may be used for tree or small plantation. Avoid use of domestic drains for this dusty water.

Note: - Clean filter carefully to avoid damage. Replace damaged filter immediately. Do not use damaged filter. Damaged filter at discharge may give turbid outlet flow which will spoil tank water quality. Damaged suction filter may damage pump. For safety reasons check both the filters regularly.

Storage for long time

Users are advised, do not keep machine in wet condition for storage after use. After every use, please clean & dry the filter media. Drain water content from machine, filter & hose pipes completely and wipe out with dry cloth. Please keep all components in same container to avoid loss of any single component.

Do not use tank cleaning machine for following application

- 1. Industrial application such as solvent, mother leaker, chemical or effluent. This is only water sump or tank cleaning application machine. For Industrial chemical application please contact us with liquid specification and application details.
- 2. Water with abrasives content in very high quantity.
- 3. Water with solid size more than 10 mm.
- 4. Cleaning of floating impurities from water tank.
- 5. Muddy water where flow of liquid is difficult.
- 6. For tanks which is having very high & thick deposition of sludge or sediment. For such tanks we also recommend to empty out & clean first by other suitable methods. Afterwards during regular cleaning, this device may be used frequently.
- 7. This machine is not recommended for cleaning of drinking water as final filtration machine.
- 8. This machine cannot remove water color & suspended impurities.

Tank Preparation for cleaning

- 1. The tank to be cleaned should be minimum water level of 300 mm (1' feet) or filled completely.
- 2. Do not clean the water tank which is having very low water level (less than 150 mm or $\frac{1}{2}$ " feet) or no water.
- 3. Do not plan to clean tank during water makeup, this will disturb bottom deposited sediment and it will make all water content turbid.
- 4. Do not move the brush ended pipe in water with speedy movement, it will disturb settled impurities.
- 5. If permissible, add Alum (Aluminum sulfate) in powder form to speedup sediment settling process. This will speedup sediments settling process as well as it will reduce tank cleaning time. This is recommended only for high turbid water which remains non-clear after few hours of natural settling. The approximate quantity of Alum for 1000 liters capacity tank is about 5 to 10 grams.

Safety precautions for using device

- 1. Do not alter the design or application.
- 2. Use the machine for specified application only.
- 3. Use power supply as per specification only with 3 core 220 V AC.
- 4. Use genuine spares only for better performance.
- 5. If cable is damaged, get unit serviced through authorized service provider or manufacturer. Do not use machine with damaged cable or power plug.
- 6. If machine faced any impact or fall get it verified before use.
- 7. For electrical components repair or replacement, please call service provider or manufacturer.
- 8. Keep it away from small child.
- 9. Keep cable end dry and away from water source.
- 10.Do not operate machine in dry or empty tank condition.
- 11.Do not start power supply to machine before priming and before completely removal of air from machine.
- 12.Do not remove machine's brush end from tank while machine power is switched on for cleaning of tank.
- 13.Do not operate machine for more than 15 minutes in heavy deposit tank. If needed stop the machine & clean the filter before continue further cleaning.

Recommendation

We recommend followings for tank cleaning based on our exposure.

- Keep more frequency of tank cleaning based on input source sediment. If input sediment flow is higher, keep shortest duration for cleaning. If input sediments are lower, please check tank regularly to avoid more deposition.
- Operate this machine at least once in a month to avoid mechanical problems in pump unit.
- Keep extra spare filters ready to avoid use of damaged filters.

Manufactured By



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